BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Electric Integrated Resource Planning and Related Procurement Processes.	Rulemaking 20-05-003 (Filed May 7, 2020)

AMERICAN CLEAN POWER – CALIFORNIA COMMENTS ON THE ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENTS ON NEED AND PROCESS FOR CENTRALIZED PROCUREMENT OF SPECIFIED LONG LEAD-TIME RESOURCES

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Pursuant to the April 26, 2024 *Administrative Law Judge's Ruling Seeking Comments on Need and Process For Centralized Procurement of Specified Long Lead-Time Resources* ("Ruling"), American Clean Power – California ("ACP-California") hereby submits the following opening comments in response to the questions set forth in the Ruling.

Introduction and Summary

In enacting Assembly Bill ("AB") 1373, the Legislature signaled its clear intention to accelerate the development of new, large-scale clean energy resources that may be difficult for load-serving entities ("LSEs") to procure, but which are essential to achieve the state's decarbonization goals. To deliver on this vision, the California Public Utilities Commission ("CPUC" or "Commission") should interpret the AB 1373 need assessments as a cyclical process that is open to multiple eligible technologies where scale, lead-time, and associated infrastructure investments may warrant central procurement through technology-specific solicitations. For offshore wind ("OSW") resources, the CPUC should make a need finding of 10 gigawatts ("GW") by 2035, which is the scale of a future market pipeline necessary to stimulate investments in projects, ports and a robust supply chain. This target is also consistent with the scale of build-out of all existing OSW lease areas,[1] and the trajectory of AB 525 offshore wind goals between 2030 and 2045. For out-of-state wind ("OOS wind") resources, central procurement of 3.7 GW by 2035, reflecting the gap between the Preferred System Plan ("PSP") portfolio and the LSE Integrated

[1] See ACP Comments on AB 525 Draft Strategic Plan, available at CEC docket 17-MISC-01 (April 8, 2024), p. 30.

Resource Planning ("IRP") plans, represents a reasonable starting point for the need assessment.[2] We do not take a position on a need finding for geothermal resources at this time, but encourage the CPUC to evaluate the potential for central procurement to overcome the financing and transmission constraints holding back development of conventional geothermal and enhanced geothermal systems in future cycles.

We encourage the Commission to view cost-benefit analysis as part of a broader qualitative and quantitative consideration of the risk management benefits of pursuing a more diversified resource strategy that central procurement enables. We offer several recommendations to interpret and expand the cost-benefit analysis and on procurement approaches to reduce costs through economies of scale that capture all the value of long lead-time ("LLT") development for resources like OSW, OOS wind and enhanced geothermal.

We agree with the conclusion in the Ruling that Department of Water Resources ("DWR") procurement should not compete with LSE procurement from existing orders, such as the Mid-Term Reliability ("MTR") directive. We support the early action contemplated in the Ruling and providing clear direction to LSEs before they make financial commitments for similar resources or product attributes.

The Ruling proposes numerous measures to protect ratepayers by preserving the Commission and DWR's ability to adhere to just and reasonableness standards. ACP-California agrees that DWR should have discretion to contract for less than the Commission's need assessment and that contracts should be vetted by a procurement review group. However, even if DWR meets these requirements, it must still file an application which could be a very lengthy proceeding. While ACP-California recommends reducing review time at the back end through the advice letter process, we generally support the proposed review process.

We oppose setting a pre-determined price cap for solicitations as the Ruling contemplates. Considering the multiple procedural opportunities to assess cost-effectiveness in the procurement and review processes, it is unclear what role a price cap would serve beyond excluding bids which may be cost-effective under future market conditions and an evolving understanding of resource

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[2] This recommendation is based on ACP-California's analysis of the Preferred System Plan and the LSE Plans filed in November 2022. We noted a discrepancy in the PSP portfolio figure cited in the ruling and the PSP 25 MMT Core Portfolio detailed in D.24-02-047. D.24-02-047 found an incremental need of OOS wind resources of 7,100 MW in 2035. The difference between 7,100 megawatts ("MW") and 3,400 MW (2022 LSE Plans) is 3,700 MW. See Ruling at p. 13, D.2402047, Table 4, p. 68.

value. Price caps applied at the beginning of a solicitation process potentially limit bids from entities that may require a higher price to address foreseeable risks, such as supply chain development. Placing a price cap on DWR at the beginning of the process will unnecessarily curtail DWR's ability to evaluate risk and value. DWR should be able to explore both high and low offers and gain a more robust understanding of how developers perceive development risks, the basis for project costs, and expected project performance with the ability to reject bids if they are deemed to be unreasonable or too expensive. Knowing that DWR may reject bids will ensure that developers provide DWR with their best price without having an arbitrary price cap and will enable DWR to bring more informed procurement proposals to the Commission for review.

Furthermore, although the CPUC is rightly focused on affordability, we note that the costs of LLT procurement will not be borne by ratepayers until the projects meet their commercial operation date ("COD"), which for offshore wind is unlikely to be before 2035. By that time, electrification loads will have expanded the rate base and wildfire mitigation costs will likely be less of a burden for ratepayers. This is essential context for considering how to balance the affordability challenges of today with the need to stimulate major long-term investment in a reliable, affordable and clean energy system of the future.

<u>Questions for Parties</u>

1. **Please comment on whether Figure 1 above outlines the appropriate criteria for considering whether a resource should be procured via the DWR centralized procurement mechanism. Are these the right criteria or are there others that should be added or substituted?**

ACP-California generally supports the framework presented in the Ruling and we appreciate the thoughtful framing by the Energy Division staff. We encourage staff and the Commission to allow broader considerations of public policy benefits and tradeoffs related to central procurement. This includes resource-specific barriers which could be solved by a central procurement entity ("CPE"), benefits of socializing costs and risk for pursuit of new technologies, and economic benefits of a well-financed central buyer.

When the Commission considers "procurement challenges" criteria, it should explicitly consider procurement opportunities presented by central procurement that benefit the state (e.g., "public good"). The criteria should also consider how central procurement of a particular resource could reduce costs by lowering the cost of capital, reducing risk, and stimulating private investment in associated infrastructure. ACP-California provides additional suggestions on the appropriate criteria to include in Figure 1 below:

a. The Buyer/Seller Mismatch Category Should Also Encompass Whether There are Additional Hurdles a CPE Could Overcome That a Single LSE Could Not.

ACP-California agrees that assessing the mismatch between the project or transmission size and the buyer and seller is an important factor to include in the Commission's analysis. However, in addition to considering the project-to-LSE comparison, this category should more broadly contemplate whether there are critical hurdles which a CPE can resolve that are otherwise unlikely to be resolved unilaterally by a single LSE. For example, large, fixed investments in port infrastructure are necessary before commercial-scale OSW projects can be contracted. Similarly, interstate merchant transmission projects for OOS wind require multi-agency coordination and commitments and could benefit from the efficiencies of a single-buyer model. Having the backing of a state agency for energy offtake will provide assurances to support infrastructure development and justify investments in a robust supply chain, including LLT procurement of equipment.

b. Cost-Effectiveness Should Contemplate Whether the CPE Will Provide a Hedge Against Significant Economic, Reliability, or Environmental Risk.

ACP-California agrees that market transformation is an important basis for central procurement and generally supports the criteria included in Figure 1. However, it is worth noting that cost-effectiveness across a range of scenarios is a difficult test when considering only avoided cost benefits. The Commission should contemplate the cost-effectiveness of a central procurement decision not solely on whether it is cost-effective under multiple hypothetical futures, but whether it provides a cost-effective hedge against significant economic, reliability, or environmental risk under plausible scenarios which may arise over the course of the energy transition. We elaborate on this concept in response to Questions 6 and 9. The cost-effectiveness metric should encompass a blend of quantitative and qualitative analysis, recognizing there is limited foresight into an uncertain future. Additionally, cost-benefit analysis should consider broader economic development goals outside the scope of current analysis.

c. The Commission Should Include Resource Diversification as a Factor for Consideration in Figure 1.

As articulated in prior comments, ACP-California recommends the CPUC explicitly attribute value to resource diversification and include diversity contribution (both in energy/capacity attributes, location, siting requirements, and technology), as a criterion for central procurement.[3] The inherent value of resource diversification should be a basis for need identification. If the Commission does not attempt to procure diverse resources at sufficient scale through the new tool provided by AB 1373, the window of opportunity will close for securing resource options that mitigate risk. Consideration of substitutes should not limit overall portfolio diversity. ACP-California discourages the Commission from considering OSW and OOS wind as alternatives to resource diversification: New Mexico wind, Wyoming wind, Humboldt wind, Morro Bay wind, and geothermal resources are likely to have complementary production profiles which will help mitigate weather variability and uncertainty through geographical and technological diversity. The Commission should reframe this category to shift the focus away from "serves a key role without substitutes," to instead focus on whether the resource "adds significant and important resource diversity." It is worth noting that AB 1373 added the requirement for IRP to "maintain a diverse portfolio" which the Commission should consider as a standalone criterion, consistent with Section 454.52(a)(1)(J) of the Public Utilities Code.

Finally, we agree that market transformation is an important basis for central procurement. The state played a key role in transforming the market for solar and storage resources through policy mandates that were generally executed by large entities. The supplementary analysis to the Ruling highlights this effect, citing an IRENA analysis of cost declines for various technologies, noting "favorable government policy is frequently required," including funding, incentives and procurement orders.[4] The substantial utility / multi-agency coordination involved in getting the solar and storage industries to significant levels of penetration through coordinated project development, siting, transmission investments, California Independent System Operator ("CAISO") operations, and many other measures clearly benefitted from clarity of vision and leadership by the CPUC. This same approach is necessary for offshore wind and other eligible resources requiring greater market clarity and sufficient scale.

[3] See R.20-05-003, ACP-California Opening Comments on Proposed Decision Adopting 2023 Preferred System Plan, Related matters, and Addressing Two Petitions for Modification (Jan. 30, 2024), p. 6.

[4] Analysis for Centralized Procurement of Specified Long Lead-Time Resources (April 2024), p. 51.

d. Out of State Wind Classifications

Classifying OOS wind as red in Figure 1 as a "proven established technology" with no opportunity for cost declines is inaccurate. Siting and permitting of transmission for OOS wind is a large part of the project cost, with some projects in development for more than a decade. Learnings from these projects, federal regulatory changes, and central procurement can help lower the development time and cost for OOS wind. The Ruling asks if central procurement is necessary, given the development and procurement that is already occurring. The projects going forward, such as SunZia and TransWest, have been in development for more than a decade, which is a testament to the development barriers they have faced. Recent federal legislation will help to a degree (see answer to Question 5), and central procurement would provide offtake assurance early in the development process for new transmission that would assist with permitting, supply chain, and lower costs by expediting project development.

In addition, ACP-California believes that OOS wind should be classified as green not yellow for "cost effectiveness." Figure 1 correctly states that it is selected across all RESOLVE cases. While OOS wind is currently being procured by LSEs, it is not being procured in sufficient volumes to meet the longer-term PSP portfolio relative to LSE Plans, as shown in Table 1. Since OOS wind meets both criteria in this category, it should be classified as "green" in the Commission's qualitative assessment.

2. **Should other resource types (beyond OSW, OOS wind, geothermal, and LDES) also be considered for centralized procurement through DWR at this time? Provide rationale if you suggest other resources should be included.**

The Ruling provides a rational explanation for why the September 2024 need assessment should be focused on these four resource types. However, the Commission should ensure that in the future, the need assessments are open to technologies that provide diversity benefits but have not been procured in sufficient quantities by individual LSEs. If the Commission finds a need for other technologies, it should ensure that future solicitations are conducted separately for each technology-type.

3. **In addition to the list of criteria for eligible resources in the AB 1373 statute, are there additional criteria that should be taken into account by the Commission when determining which resources should be procured through the DWR centralized procurement mechanism? Specify.**

ACP- California recommends the Commission include in its qualitative criteria analysis that CPE direction "fulfill public policy objectives beyond IRP statutory requirements." AB 1373 requires that the central procurement need identification be "in consultation with the Energy Commission," based on compliance with SB 100, as well as progress toward meeting the portfolio of resources identified in the IRP process.[5] This expressly contemplates public policy direction outside the IRP process for the need identification portion of this Ruling.

For example, we recommend the Commission consider AB 525 (2021) and OSW planning goals adopted by the California Energy Commission ("CEC") in 2022. The CEC's OSW goals are 5 GW by 2030 and 25 GW by 2045. Although the 2030 goals may be ambitious given the procurement and project timeline contemplated in this Ruling, a 10 GW by 2035 target is consistent with this planning goal trajectory. Furthermore, the Energy Commission established its OSW goals on a variety of considerations and public benefits that are outside the scope of the CPUC's IRP framework, which will broaden the Commission's considerations when evaluating which resources should be procured through the CPE. These considerations, which include potential economic development in California and job creation, should be incorporated into the needs assessment through the CPUC's consultation with the CEC and through reference to the AB 525 findings. This approach aligns with the Commission's suggestion on page 23 of the Ruling that, "[a]n initial tranche of OSW could be procured by DWR in a centralized manner at a large scale as a public good and with the purpose of investment in GHG reductions for California as a whole, specifically to attain the goals set forth in Section 454.53."[6]

In addition, the Commission should also consider public policy findings made by the CEC in its analysis on pathways to achieve Senate Bill ("SB") 100 goals, which may indicate the need for certain technologies or attributes otherwise missing from CPUC analysis in IRP. This is consistent with Energy Division staff findings going back to 2020, which acknowledge there may be some "non-routine", LLT resources that "can potentially help fill the system need (reliability, GHG, or a combination) and offer other benefits not represented quantitatively in capacity expansion modeling, but may not be procured due to market failures" and therefore warrant

[5] California Public Utilities Code 454.52(a)(4)(a).

[6] Ruling, p 23.

specific procurement attention.[7] Finally, the Commission should consider alignment with the CAISO's 20-year transmission planning process which is tied to the CEC's SB 100 analysis. Both processes are planning around an assumed 20 GW of OSW, 12 GW of OOS wind, and 2.3 GW of geothermal by 2045.[8] This consideration would be consistent with the CAISO-CPUC-CEC Memorandum of Understanding and the energy agencies' combined objectives to plan procurement oriented around existing or planned transmission over longer timeframes.

4. **AB 1373 contains specific criteria for eligible pumped hydroelectric facilities. What particular projects currently under development can meet the criteria and should they be procured centrally by DWR?**

   ACP-California does not offer a response at this time.

5. **How could developers leverage the many incentive opportunities that are available from the Federal government through the Inflation Reduction Act and the Bipartisan Infrastructure Law to assist with the financing of LLT resource development? How could developers and contractors access the Department of Energy or other agency grants for resource and infrastructure development that are available for projects that improve reliability and grid flexibility? How might centralized procurement help leverage federal funds for each resource type?**

   Offshore Wind

Sending a clear market signal that California is committed to building a floating OSW industry through central procurement can leverage significant federal funding. Most notable is the Department of Transportation's $450 million grant to the Port of Humboldt for an OSW terminal.[9] California's OSW goals established through AB 525 and President Biden's commitment to OSW were central to this award. However, this grant requires a 100% match, which could come from a combination of state or private investment. Private equity investors evaluating the Humboldt port business case are keenly watching how and whether California will provide greater certainty on

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[7] Staff Proposal for Resource Procurement Framework in Integrated Resource Planning (November 2020): https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M351/K577/351577337.PDF, p A-36.

[8] CAISO 20 Year Outlook Update Plan, available at http://www.caiso.com/InitiativeDocuments/Presentation-20YearTransmissionOutlook-Apr18-2024.pdf.

[9] See Offshore Engineer: Californian Port Gets $427M Boost for New Offshore Wind Infrastructure: https://www.padilla.senate.gov/newsroom/news-coverage/offshore-engineer-californian-port-gets-427m-boost-for-new-offshore-wind-infrastructure/.

OSW project offtake as this is ultimately the pathway to return on investment for the port itself.[10] While the Port of Long Beach has yet to secure federal funding for the Pier Wind project, an assessment of the future OSW customer opportunity (i.e., pipeline of future projects) will be fundamental to any public or private investment in port infrastructure.

In addition, President Biden established the Floating Offshore Wind Shot program in September 2022 to advance a "critical window of opportunity to not only make this technology more affordable but also to become a world leader in floating offshore wind design, deployment, and manufacturing."[11] The U.S. Department of Energy ("DOE") recently produced a progress report detailing over $950 million in federal funding deployed over the last two years to advance President Biden's Floating Offshore Wind Shot.[12] Academics and technology providers targeting the California market are prime candidates for future awards under the same programs if the state translates its OSW goals into a more certain procurement opportunity.

Floating OSW is expected to take advantage of the Clean Energy Production Tax credit which will apply to projects placed in service in 2025 or later and until the later of (a) 2032 or (b) when U.S. GHG emissions from electricity are 25% of 2022 emissions or lower.[13] We expect floating OSW projects to qualify for prevailing wage and apprenticeship bonuses and may also qualify for energy communities and domestic content bonuses. OSW supply chain investments in California may also qualify for Advanced Energy Project Credits (48C). The Port of Long Beach is located in an Energy Community, which will enable OSW projects to capture the 10% Energy Communities tax credit bonus.[14] Of course, the ability to capture these federal benefits is dependent on the scale and timing of California's OSW project pipeline.

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[10] See: https://www.times-standard.com/2024/03/07/crowley-to-allow-exclusive-right-to-negotiate-with-harbor-district-expire-for-offshore-wind-terminal/.

[11] See the DOE's Energy Earthshots, Floating Offshore Wind Shot: Unlocking the Power of Floating Offshore Wind Energy: https://www.energy.gov/sites/default/files/2022-09/floating-offshore-wind-shot-fact-sheet.pdf.

[12] See Floating Offshore Wind Shot: Progress and Priorities: https://www.energy.gov/eere/wind/floating-offshore-wind-shot-progress-and-priorities.

[13] See White House press release, Clean Energy Tax Provisions in the Inflation Reduction Act: https://www.whitehouse.gov/cleanenergy/clean-energy-tax-provisions/.

[14] U.S. DOE Energy Community Tax Credit Bonus: https://arcgis.netl.doe.gov/portal/apps/experiencebuilder/experience/?id=a2ce47d4721a477a8701bd0e08495e1d.

Out of State Wind

For OOS wind, both the DOE's Transmission Facilitation Program ("TFP") and National Interest Electric Transmission Corridors ("NIETC") are beneficial programs that are complementary to centralized procurement. Having assurances that there are dedicated, financially viable offtakers for the resource will help project receive funding,[15] improving their chances of development and lowering the cost for California ratepayers. While not having the resource centrally procured via DWR, the SWIP-North project, which has been approved for cost recovery as part of the CAISO Transmission Planning Process, recently received a DOE TFP grant. Assurances of state interest, such as DWR procurement or CAISO funding, will help projects seeking support from the federal government as well.

Geothermal

The central procurement entity could play a critical role in unlocking much needed federal policy support for geothermal resources. Amongst all clean energy generation technologies, geothermal has consistently received the least federal support, particularly for demonstration funding. The Bipartisan Infrastructure Bill provided $84 million for Enhanced Geothermal demonstration projects, spread across multiple funding buckets. Despite modest and inconsistent investment, DOE's Enhanced Geothermal Shot initiative has adopted a goal of lowering enhanced geothermal system ("EGS") costs to $45/megawatt-hour ("MWh") by 2035. The industry has already cut overnight capital costs by 47% since 2021 and additional cost declines are clearly achievable through continued deployment. Building on technological breakthroughs achieved in the field, DOE's Next Generation Geothermal Liftoff Report found that the deployment of 2-5 GW of next-generation geothermal projects would push the industry to full commercialization. The Liftoff report specifically cites "demand-side signals that incentivize the procurement of clean firm power" as a "major" contributor to reaching this goal.

Geothermal benefits from the Clean Energy Tax Credits enacted by the Inflation Reduction Act. Due to labor and supply chain overlap with the oil and gas industry, geothermal benefits from a developed supply chain for domestic components and a robust pool of highly paid drilling service workers. Building on these strengths, geothermal will benefit from domestic content and labor

[15] DOE is specifically looking for projects that "demonstrate sufficient viability to enable DOE to recover its costs in a timely manner." Central procurement from DWR will help meet this criterion. https://www.energy.gov/gdo/transmission-facilitation-program-frequently-asked-questions.

bonus credits, and through the siting flexibility enabled by EGS technology, projects serving California are also able to capture the energy community bonus credit. An analysis by the Boston Consulting Group found that these extended tax credits led to a 40% reduction in the levelized cost of new geothermal.[16]

EGS opens up widespread geothermal resources from "hot dry rock," enabling development opportunities in much of the West. This allows geothermal to benefit from transmission investments across the region, including NIETC-designated lines. Geothermal's high-capacity factor allows for high utilization of transmission assets which makes it an attractive resource for anchoring new transmission development and favorable for federal programs prioritizing pathways.

A strong demand signal from the central procurement entity would demonstrate the continued growth and advancement of geothermal resources and draw attention to the huge benefits enabled by greater federal investment.

6. **Comment on the cost-benefit analysis conducted, including the analysis presented in the slide deck posted on the Commission's web site. Does the analysis serve as a reasonable basis for a need determination? Specify how and why.**

ACP-California appreciates the Commission's efforts to undertake additional cost-benefit analysis and is directionally supportive of the use of cost-benefit analysis for informed decision-making on central procurement decisions. ACP-California is also developing its own cost-benefit modeling, which we plan to introduce into the record in our reply comments.

We appreciate Energy Division staff's efforts but have concerns that the cost-benefit analysis is inherently limited in its scope. While cost-benefit analysis is informative, it is inexact and reflects a range of assumptions around future system costs and operations which are likely to evolve as the energy transition unfolds. In this context, cost-benefit analysis should function as one of several quantitative inputs to be considered in conjunction with qualitative assessment that inform policymaker judgment regarding the broader benefits of diversifying the state's decarbonization strategy with central procurement. Specifically, ACP highlights the following three themes:

a. Risk Mitigation Under a Range of Futures Is an Important Policy Objective

[16] "Impact of IRA, IIJA, CHIPS, and Energy Act of 2020 on Clean Technologies," Boston Consulting Group. April 2023: https://breakthroughenergy.org/wp-content/uploads/2023/04/Geothermal-Cleantech-Policy-Impact-Assessment.pdf.

The Energy Division's cost-benefit analysis demonstrates the risk-mitigation benefits of a diverse resource strategy, in which the risk of shifting future circumstances is hedged through the inclusion of complementary resources like those being considered for central procurement.[17] This is a key takeaway – it is not essential for every scenario to show benefits to order procurement, but rather to identify the benefits across a range of uncertain future outcomes which are over a decade away. This trend is demonstrated through the Energy Division analysis and, as discussed further below, ACP-California believes risk mitigation benefits will be better substantiated through a broader suite of stress testing which includes very plausible futures which test core assumptions on which the modeling results are premised, such as the role of regional imports, the operations of the hydroelectric fleet, consumer trends related to data and electrification, and different development outcomes for resources in the base portfolio. Risk mitigation, like other insurance products, may well come at a premium on the 'base case' view of the future – but will avoid much higher costs in the many plausible alternative futures in which the insurance policy is needed. Conversely, it will be impossible for the state to "catch up" in LLT resource procurement if it identifies a need too late to facilitate project and infrastructure development.

b. Additional Stress Testing Will Further Demonstrate Diverse Resource Value

A broader risk analysis which more fully stress tests key assumptions, such as import and hydro availability, load forecast uncertainty, and delivery risks associated with any single over-weighted technology, are likely to demonstrate larger benefits from the inclusion of diverse resources. While ACP-California appreciates the inclusion of elements of these risks in the Commission's stress tests, further analysis is needed to understand the full range of future outcomes. For example, we note that the "low resource availability" scenarios in the ED analysis constrained only OOS wind, geothermal and pumped hydro, not solar, batteries, or unspecified imports.[18] Regional resource planning trends indicate that import availability is likely to be considerably more constrained in the future, at least in the absence of new regional transmission projects. Additionally, the IRP framework has historically assumed roughly half of all imports are

[17] November 2020 Staff Paper notes, "If the state's resource portfolio becomes skewed heavily towards a few resource types, the CPUC may seek to increase resource diversity as a risk hedging mechanism." Available at https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M351/K577/351577337.PDF.

[18] CPUC May 7, 20247 workshop Q&A transcript, available at: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/long-term-procurement-planning/ab-1373-centralized-procurement-of-specified-long-lead-time-resources.

emissions free, while assigning the average emissions rate (a relatively efficient peaker) to the remainder; unspecified imports, to the extent they continue at historical levels, should at a minimum be accounted for at the unspecified import rate and should incur portfolio costs reflective of market premiums for emission-free resources, which will grow as other states' carbon policies come into effect. The California, Columbia and Colorado river systems are at significant risk from climate change, with significant uncertainty regarding future snowpack and retention as weather patterns shift from snow to rain, with fewer, bigger storms which are more operationally challenging to capture. Consumer trends related to electrification and data usage are also deeply unpredictable, yet form the edge of reliability constraints that are dependent on assumptions regarding the magnitude and timing of vehicle charging. Each of these concerns has been identified as a risk within the recent IRP process.[19]

c. RESOLVE Offers a Useful First Pass but May Not Develop Apples-to-Apples Portfolios

There are several known limitations of RESOLVE which skew the cost-benefit analysis against resource diversity and challenge the notion that the portfolios being compared are equivalent on performance metrics, specifically reliability and emissions. First, RESOLVE is known to show significantly lower emissions than SERVM while also underestimating curtailment from solar energy resources relative to historical values,[20] both of which are related to its limitations as a Capacity Expansion model in modeling the detailed operations of the broader system, and both of which are likely to understate the emissions benefits of diverse resources. Second, RESOLVE's reliance on ELCC values and energy accounting without corresponding production cost modeling to assess reliability and emissions values raises significant questions regarding the equivalence between the portfolios. SERVM's more robust engagement with operational questions under a wide range of weather history is critical in understanding the long-tail risk for reliability which is precisely the focus of resource diversification efforts, such as the impact of multi-day weather events or variations in resource availability. Third, RESOLVE lacks effective energy sufficiency constraints to reflect limited hydro and import availability, allowing

[19] 2023 Preferred System Plan Proposed Decision, Modeling and Analysis Deck, pp. 27-28; PSP Ruling, pp. 23-24.

[20] 2023 Preferred System Plan Proposed Decision, Modeling and Analysis Deck, pp. 25-26; 2023 Proposed PSP & 2024-2025 TPP Resolve Modeling Results Deck, pp. 49-52.

the system to lean heavily on imports from the Pacific Northwest. Each of these limitations is likely to result in diverse portfolios which may be equivalent to the base portfolio in RESOLVE but are superior on reliability and economics in SERVM.

7. Are the quantities of resources contained in the PSP portfolio adopted in D.24-02-047 a reasonable basis for considering utilization of the centralized procurement mechanism? Provide your rationale.

Offshore Wind

While the PSP portfolio adopted in D.24-02-047[21] provides a starting point for evaluating the role of CPE, the Commission should adopt a 10 GW OSW need assessment by 2035. This need identification should be fulfilled through a series of competitive solicitations leading up to the total need, with the opportunity to scale down the quantity of contracts awarded in each solicitation if DWR does not receive competitive offers, or the Commission does not find that contracts meet the just and reasonable standard. It is worth noting that while the PSP is part of the basis of need identification per AB 1373, the statute more broadly represents the obligations of IRP and SB 100's codified goals: "1), the commission, in consultation with the Energy Commission and the Independent System Operator, shall determine if there is a need for the procurement of eligible energy resources based on a review of the integrated resource plans submitted by load-serving entities in compliance with the requirements of this section and Section 454.53 and the progress towards meeting the portfolio of resources identified pursuant to subdivision (a) of Section 454.51."

Out of State Wind

For OOS wind, we believe the quantities are a reasonable starting point for 2035. However, CAISO's 20-year plan includes 12 GW of OOS wind and the IRP models were limited to the 7.1 GW in the PSP due to assumptions of speed of resource build for OOS wind. While the PSP level should provide a floor, the Commission should also consider higher amounts if found to be cost effective and contributing to a diverse resource portfolio. We therefore recommend a minimum of 3.7 GW in the first procurement round for 2035 CODs. More detail on the timing considerations for out-of-state wind solicitations can be found in Question 8 below.

[21] The 2023 PSP includes planned and selected capacity expansion of 4.5 GW of OSW resources by 2035, see D.24-02-047, Table 4, p. 68.

8. What need determination for centralized procurement should the Commission make before the September 1, 2024 AB 1373 deadline and why? Specify which resource types, in what amount, and by when.

Offshore wind

Before the September 1, 2024 statutory deadline the Commission should identify a need for central procurement of OSW and specify procurement of 10 GW by 2035. The Commission should base its need identification on a broader set of public policy considerations, as discussed in Question 3, and the practical realities of scale required for market transformation and project realization, as discussed below. Establishing a 10 GW by 2035 procurement target would provide a sufficient signal of long-term market scale to support OSW project development, associated port infrastructure development and supply chain readiness.

The U.S. Department of Energy's recent "Pathways to Commercial Liftoff"[22] report describes the critical paths to commercial scale for floating offshore wind which include:

- *Demand certainty: Send strong demand signals, with a clear offtake timeline and mechanism, including a clear, multi-phase sequence of offtake, with long and bankable revenue sources as a part of technology-specific awards; and*
- *Commercial ecosystem: Build investor confidence, de-risk project-scale financing, and bring market to maturity via improved contracting interfaces, insurance, and repeated deployment.*

These findings are based on experience with fixed bottom OSW on the East Coast and are important considerations for need identification. Furthermore, the failure of existing processes to drive sufficient procurement of diverse resources, is acknowledged in the CPUC's November 2020 staff paper and the Reliable and Clean Power Procurement Program ("RCPPP") staff paper[23] and was a primary reason for the Legislature and Governor's approval of the central procurement program provisions in AB 1373.

Demand certainty and support for the commercial ecosystem are essential strategies to cost reduction, according to the DOE report. The "market transformation" benefits of central

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[22] US DOE, "Pathways to Commercial Liftoff: Offshore Wind," (hereinafter "DOE Liftoff report") 2024, p. 33: https://liftoff.energy.gov/wp-content/uploads/2024/04/LIFTOFF_DOE_OFFSH_v13.pdf.

[23] 2020 Staff Paper, available at https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M351/K577/351577337.PDF; RCPPP Staff Paper https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/procurement-program-staff-options-paper_09122022.pdf.

procurement described in the Ruling are only achievable with sufficient scale. A recent DOE report notes, "Globally, the cost and risk of offshore wind development has decreased significantly over time as deployment has scaled. As total installed capacity scaled from 3 GW in 2011 to 33 GW in 2021, the average levelized cost of electricity ("LCOE") of projects decreased by roughly 60%—projects reaching COD in 2011 cost ~$252/MWh on average, while projects reaching COD in 2021 had an average cost of $102/MWh (unsubsidized $2024 nominal LCOEs)."[24] Although floating OSW developers may be able to tap into some of the learnings across the global industry (global floating offshore wind deployments are expected to reach ~20 GW by 2035[25]), California's contribution to overall deployment will be a major contributor to global cost declines over the next decade.[26]

The scale of the procurement pipeline also affects project affordability as relatively fixed infrastructure and supply chain costs will be more affordable on a per-unit basis if spread across a larger pipeline of offshore wind projects. For example, a small project pipeline will apply upward pressure on PPA prices since port developers will have to charge much higher rents to a project developer if they see no future opportunity to amortize costs over a broader future customer base.

However, beyond the cost-reduction benefits of a sufficient need identification, the Commission should also be aware that identifying an OSW need that is too low may compromise *any* commercial scale OSW in the state. It is not possible to build a viable OSW industry in California if the state procures only one or two projects in the next decade. First, OSW developers will struggle to finance and advance projects through pre-development phases on the basis of a very limited potential market opportunity. As we expect central procurement to be the only viable method for commercial-scale project contracting, OSW developers require a procurement signal of sufficient size to continue to put large quantities of capital at risk toward project maturation. Individual LSEs do not appear prepared to procure OSW on their own[27] beyond a de-minimis

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[24] DOE Liftoff report, p. 20.

[25] DOE Liftoff report, p. 18.

[26] Renew UK projects 4.5 GW floating offshore wind in Europe.

[27] Although 4,500 MW of OSW appeared in LSE plans, there has been no forward movement on OSW procurement commensurate with these plans. We expect the central procurement program has assumed the place of these individual LSE procurement for OSW.

quantity,[28] and in fact the availability of a central procurement program is likely to encourage LSEs to defer difficult, LLT resources to the CPE to avoid assuming above-market costs or risks on their own. If the state wants LSEs to procure OSW in the future, to bridge the gap between a first 10 GW tranche and the longer-term 25 GW market, it must first create a pipeline of projects through central procurement of the first 10 GW.

Second, staging and integration port developers require a sufficient scale of project pipeline to proceed with building their projects. The business model for these port upgrades is dependent on expected future revenues from multiple project developers paying rents for use of the port facilities over several years. No staging and integration port can be financed based on one or two potential future projects and without a staging and integration port in the state, commercial-scale OSW assembly will be impossible. A report from the UK Floating Offshore Wind Center of Excellence notes, "Offtake certainty is the fundamental barrier to investment [in OSW ports]. Without a mechanism to overcome this barrier by providing offtake certainty, the industry will rely on those investors that are able to invest on an anticipatory basis."[29]

Third, major supply chain entities need to see a sufficient supply of offtake contracts to plan for and direct their manufacturing capabilities to fulfill future equipment orders for California. The state market will have to compete with tier 1 component suppliers (e.g., foundations, blades, towers, nacelles) in Asia and Europe who see larger markets in Asia, Europe and the US East Coast, around which they will orient their manufacturing schedules and logistics plans.[30] The procurement pipeline will also affect the ability of local suppliers, including port-side platform manufacturers as well as second and third tier suppliers, to plan and invest in local manufacturing capabilities. These suppliers, similar to ports, will be hard pressed to justify new manufacturing

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[28] CA Demo Press release: https://cademo.net/california-community-power-x-cademo/.

[29] See Floating Offshore Wind Centre of Excellence Port Infrastructure And Manufacturing Investment Models, available at: https://fowcoe.co.uk/wp-content/uploads/2024/05/FOW-CoE-PR50-Port-Infrastructure-and-Manufacturing-Investment-Models.pdf; Note "Port related activities for individual offshore wind projects can be relatively short (2-3 years), while the expected payback period for a port expansion is likely to be much longer, around 8 to 10 years. This means a port would have to secure multiple wind farm projects over its payback period to repay debt and be profitable." (p. 30)

[30] Oceantic Whitepaper, Suppliers' Guide to Success: Smart Scaling for the U.S. West Coast Floating Wind Market (May 2024) notes, "A solicitation of less than 2 GW risks a situation in which project developers will be forced to pay a premium to access key supply chain components, as orderds for larger markets around the world will take precedence from the perspective of the supplier." Available at: https://oceantic.org/suppliers-guide-to-success-smart-scaling-for-the-u-s-west-coast-floating-wind-market/

facility investments or even to accommodate orders from California developers competing with global supply unless the quantity of total market opportunity is sufficient. A recent white paper from Oceantic Network explains, "a legislated commitment or firm regulatory directive to procure a steady volume of offshore wind with auctions and volumes defined on a predictable schedule will give suppliers clear line of sight into future demand and greater confidence to move forward with investments."[31]

The AB 1373 offshore wind need identification is thus integral to the ability of OSW leaseholders to move forward with project development and deploy a meaningful quantity of OSW in the state. A need identification in the range suggested in the E3 analysis (e.g., 1-3 GW) will be too small to drive market transformation or enable the infrastructure and supply chain investments required to build a single commercial-scale offshore wind project.

Although we have proposed that the Commission identify a need for 10 GW OSW by 2035, we do not expect DWR to solicit or the Commission to consider contracting for all 10 GW of this resource at once. Instead, we suggest the Commission establish a schedule of solicitation opportunities and approximate procurement quantities up to this total, as described further in Question 25.

Out of State Wind

For OOS wind resources, ACP-California recommends an initial need finding of 3.7 GW by 2035, reflecting the gap between the PSP portfolio and the LSE IRP plans, as a reasonable starting point as noted above in response to Question 7. OOS wind is a low-cost resource with an output profile that is complementary to solar PV. It is for these reasons that the PSP selected large amounts of OOS wind and only because of restrictions placed in the RESOLVE model that even more was not chosen. While the Ruling correctly states that OOS wind projects are being developed, the development timing has been very slow. Central procurement, coupled with federal changes in transmission siting and permitting, will allow development of OOS wind at a pace to meet PSP targets. Offtake agreements with the state will be for amounts much larger than any one LSE or group of LSEs can accommodate, speeding up the development process and lowering contract risks. Like the benefits outlined for OSW, central procurement of OOS wind will provide

[31] *Id.*

supply chain certainty necessary for LLT equipment such as transformers and transmission development.

9. **What other elements of future Commission need determinations (such as the scope of analysis, cost assumptions, ways to manage uncertainty) would provide the best foundation for a centralized procurement solicitation?**

Please see our responses to Questions 6, 7, 8, and 10.

10. **Is the rationale described above for DWR centralized procurement to be used for new uncontracted resource types, such as OSW, as a public good for GHG reduction purposes reasonable? Why or why not?**

ACP-California strongly agrees that the Commission should apply a "public good" rationale to the need identification. In addition to GHG reductions, centralized procurement can also support other public goods in the form of economic development, resource diversification, and other benefits such as greater coordination with West-wide markets (e.g., regional transmission development).

California has embraced offshore wind not only because it is crucial in providing large scale clean energy, but also because it induces valuable additions in infrastructure, manufacturing, local investment, and job creation in the state. These benefits are detailed in the AB 525 strategic plan reports, which estimate job creation potential at a scale of ~9,000 peak year jobs and economic development at a scale of $6.9 billion annual GDP at a scale of 25 GW.[32] Regarding GHG emissions, we note the potential for OSW, OOS wind and clean firm resources like enhanced geothermal to better offset unspecified, fossil-fuel based imports from out of state and enable a greater quantity of gas retirements than other portfolios. The latter is an instructive observation from Energy Division's analysis[33] showing multiple scenarios in which forcing a quantity of OSW into the model enables greater retirement of gas resources. These resources are complementary to the state's solar output, leading to greater displacement of fossil generation output, versus a less resource diverse portfolio.

We also note the value of gas retirements for local air quality improvements and promotion of energy and environmental justice, which is a clear public good. Regenerate California

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[32] AB 525 Draft Strategic Plan, p. 36, available: https://www.energy.ca.gov/data-reports/reports/ab-525-reports-offshore-renewable-energy.

[33] Analysis for Centralized Procurement of Specified Long Lead-Time Resources, slide 35.

Coalition[34] commented on the AB 525 Strategic plan, noting "The primary benefit of developing OSW energy in California is to decrease the state's reliance on fossil fuels... Nearly 75 percent of the state's gas plants are sited in or near disadvantaged communities, causing disproportionate impacts on low-income communities and communities of color."[35] Regenerate goes on to note that "Without a plan to transition away from gas plants, California's reliance on these polluting resources will continue and possibly increase."[36] ACP-California agrees and believes the resources identified in this Ruling will support the state's energy transition.

11. If DWR centrally procures undeveloped resources as a public good, how should that procurement relate to the individual LSE procurement (existing resources under contract and/or future procurement)?

We recommend that DWR procurement be separate and distinct from routine LSE-led procurement under the IRP. The need finding for DWR procurement will occur well-outside of when incremental resources have been identified (i.e., MTR goes out to 2028 and the need finding will be for resources in the 2032-2035 timeframe). DWR's procurement should not disrupt or duplicate existing resources under contract but should also not be reduced or delayed based on future uncertainties in individual LSE procurement. The CPE need should exist unless or until sufficient collective procurement by individual LSEs occurs up to the identified need.

12. How should any DWR centralized procurement relate to the eventual RCPPP design, given that the Commission has not yet adopted an RCPPP design and yet must make an initial need determination by September 1, 2024?

Programmatic procurement under the RCPPP should presume that LLT procurement will occur to the full quantity of the need assessment. If the RCPPP framework contemplates short / mid-term needs, there is opportunity to update RCPPP procurement if LLT procurement does not

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[34] The Regenerate California Coalition is a partnership between the California Environmental Justice Alliance and the Sierra Club, represents environmental justice communities throughout the State of California.

[35] "Regenerate California Coalition's Response to Assembly Bill 525 Offshore Wind Strategic Plan" (April 22, 2024), pp. 2, 3, available at CEC docket 17-MISC-01.

[36] *Id.*, p. 5.

occur at the time or scale contemplated in the need assessment. This is contemplated in the recent Scoping Ruling that includes the issue of LLT procurement as part of the RCPPP.[37]

13. This ruling proposes that LSEs not be allowed to opt out of DWR centralized procurement requested by the Commission. If you disagree with that proposal, explain why with citations and discussion of relevant provisions of AB 1373.

ACP-California agrees that LSEs should not be permitted to opt-out of DWR centralized procurement. As the CPUC evaluates the RCPPP later this summer, it should evaluate how the RCPPP will provide certainty to LSEs and make sure that any individual LSE procurement does not conflict with DWR procurement.

14. Should a need determination for DWR centralized procurement be made by the Commission during every IRP cycle during the consideration of the PSP or at some other time? Explain the rationale for your preferred approach.

The need assessment should be updated at least on a regular basis with every IRP cycle, and more frequently as needed based on new information about long-term system needs and existing LSE procurement of diverse resources. Need assessments should be considered commitments to a least-regrets strategy, and, in recognition of their impact in moving market activities and financing towards procurement, should not be reduced if a subsequent PSP finds a lower need for a particular resource. While the Commission should clarify when it will update the needs assessment, this schedule should not be tied solely to the PSP. We note that the next PSP is anticipated in 2027, according to the most recent Scoping Ruling.[38] Therefore we see a need for flexibility to establish need determinations in interim periods, especially for LLT resources where the opportunity to "catch up" in the development process to accommodate a nearer term COD can be impossible. There is precedence for this kind of "out of cycle" procurement given the Commission's 2019 and 2021 procurement orders.

15. A logical point for POUs to engage with DWR on opting into centralized procurement would be after the Commission makes a need determination, but prior to DWR

[37] Please note ACP-California offered an extensive proposal on the inclusion of LLT procurement in its comments on the Sept. 8, 2022 Reliable Clean Power Procurement Program Staff Options Paper, available at: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M499/K887/499887964.PDF

[38] See R.20-05-003 Assigned Commissioner's Scoping Ruling (April 18, 2024), available at: https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M529/K525/529525977.PDF, p 7.

initiating procurement activities. Comment on whether this is appropriate and include any necessary and relevant implementation concerns or details.

ACP-California agrees with the timing of POU engagement. POUs should be allowed to supplement the need assessment and request that DWR procure on their behalf. POU-identified needs should not reduce the need assessment issued by the Commission.

16. **If DWR procures resources on behalf of POUs, it is possible that related costs currently socialized through existing processes, such as transmission costs flowing into the transmission access charge (TAC), may be incurred. What other costs of benefits might be implicated, and what is the best means for addressing them?**

POUs own transmission in CAISO. As part of the ownership structure, they must finance network upgrades. While POU transmission development may come at an incremental cost, these investments also create an opportunity to "right size" network upgrades necessary to deliver long lead time capacity. POU investment in transmission upgrades could also improve transfer capacity between balancing authority areas and create opportunities, which can also help reduce costs for ratepayers. Once incurred, allocation of those costs will be subject to FERC oversight and federal legal requirements for transmission rates.

The Commission should focus on the need assessment on CPUC-jurisdictional LSEs, not POUs. If POUs opt in, there will be an opportunity to address any cost allocation concerns in federal transmission rate cases.

17. **The centralized procurement mechanism could provide an alternative pathway towards procurement of diverse resources that are currently infeasible for individual LSEs or small consortiums of LSEs to develop. What process should the Commission develop to encourage parties, especially developers, to provide candid feedback about timing and pricing considerations necessary to develop LLT resources through this mechanism, while also providing the most value to ratepayers?**

As a general matter, candid conversations about financing needs, risks and project-specific issues are possible when prospective counter parties have confidentiality protections in place. Typically, this occurs in the context of solicitations that allow contractual discussions to become increasingly detailed as projects move from their initial proposal to a short-listing process. We don't see a clear opportunity for this type of exchange with buyers that are not participating in the DWR solicitation. As part of the DWR solicitation process, DWR and the Commission will receive detailed information on timing and pricing that will inform procurement decisions. Having the ability to negotiate with counterparties and choose not to procure will give the DWR and the

Commission considerable leverage and provide benefits to ratepayers. While the Commission has stated concerns about the lack of competition in a central buyer structure, developers will be highly incentivized to provide the best price if there are no or limited other buyers for their project and if DWR can choose to not select projects.

18. **For centralized procurement of resources not yet in LSE portfolios such as OSW, is it appropriate for the costs of any DWR contract to be allocated to all LSEs based on the TAC area's share of a 12-month coincident peak load? If not, provide rationale and explanation for another cost allocation methodology.**

ACP-California does not offer a response at this time.

19. **For centralized procurement of resources that already exist in at least some LSE portfolios, what is the appropriate method for allocating costs and benefits?**

Ideally, the need assessment should provide for procurement of resources in the long term, with CODs occurring after the CODs of other procurement that has already been ordered (e.g., Mid-Term Reliability procurement). We anticipate this issue will need to be revisited as the Commission develops future procurement timelines in the RCPPP. The need assessment in this cycle (e.g., 10 GW of OSW with 2035 CODs and 3.7 GW of OOS wind that is in addition to that already procured by LSEs), does not need to address this issue.

20. **How would DWR's solicitation and contracting process need to change for circumstances where POUs and/or individual LSEs seek additional volumes of procurement beyond the amount of need determination authorized by the Commission? How would those additional costs and benefits be allocated fairly to benefitting LSEs and/or POUs?**

DWR should consider requests to increase procurement but should not reduce procurement needs. If individual-LSE requests lead to incremental procurement above and beyond the need assessment, DWR should be available to contract with the LLT resources and the incremental costs should be isolated through the development of a contract between DWR and the individual-LSE.

21. **How should the allocation of benefits beyond energy and capacity (such as, but not limited to: RPS value, renewable energy credits, IRP compliance, or GHG-reduction value) be allocated to LSEs?**

Benefits should be allocated proportionately with costs incurred by those LSEs. The Cost Allocation Mechanism ("CAM") allocation process for RA benefits and the Power Charge Indifference Adjustment ("PCIA") are two existing models for how the Commission could allocate benefits to LSEs on a load-share basis. These models also account for vintaging issues when there is load departure between LSE service territories.

22. How should the AB 1373 requirements for non-bypassable surcharges be implemented?

AB 1373 procurement has many parallels to procurement undertaken for system resources, including local Resource Adequacy procurement, recovered by each LSE through the CAM. ACP-California does not anticipate that there would need to be a fundamental change in billing practices or significant novel policy or ratemaking questions resulting from AB 1373 implementation.

23. Some LLT eligible resources may require substantial infrastructure development, the costs of which are incremental to costs related to the deployment of the resource itself (for example, OSW requires port and transmission development; geothermal requires transmission development and construction in challenging environments). How do these contingent, necessary costs influence the overall financial impact of resource development for different eligible resources

ACP-California recognizes that all energy resources have incremental T&D costs and that achieving SB 100 will require major new transmission and distribution system upgrades. The CAISO's first 20-year outlook assessed an estimated $30 billion in transmission upgrades. As discussed above, sufficient scale in procurement need will drive investment in supply chains, ports and network transmission upgrades elsewhere in the WECC, which will promote affordability. In addition, we note there are opportunities to pay for certain infrastructure costs outside the rate base (through grants, tax incentive programs, Greenhouse Gas Reduction Fund ("GGRF") funding, etc.) or to reduce costs through alternative financing models (bonding, public-private debt, etc.) As mentioned in the response to Question 5, having state resource procurement will likely provide assurances that can bring in additional project support, such as federal funding. This is not limited to just project specific funding; showing statewide commitment to LLT projects will help provide the assurance to support the build out of all aspects of the supply chain and its infrastructure needs.

But central procurement of projects should not wait until necessary infrastructure has been developed. DWR can assess the infrastructure needs when selecting projects to assure synchronous timelines and monitor development after award. The Commission will be best served working with DWR to evaluate these associated costs at the time of bid evaluation, when developers and infrastructure providers will have more accurate information on costs, financing models, and public programs to offset costs. While we understand the Commission is determining how to account for associated infrastructure costs in its resource planning decisions and AB 1373 implementation, we recommend that it consider the importance of planning for infrastructure and clean energy resources at scale and across timeframes that are in sync and in a manner that takes advantage of economies of scale. For OSW and OOS wind, infrastructure and large-scale projects must be planned and advanced in parallel.

24. How do costs not directly related to the specific energy projects factor into the affordability question for ratepayers for deployment of LLT resources through centralized procurement? How could centralized procurement help address or mitigate these additional costs?

Central procurement can reduce costs for LLT procurement by enabling development of multiple large-scale projects, capturing economies of scale, and accessing lower financing costs through DWR's bonding authority. Central procurement also provides certainty to significantly derisk and reduce costs incurred by local governments and private firms seeking to develop the upstream infrastructure to deploy LLT resources at scale. We agree with the Commission that "It could be argued that it is in the best interests of ratepayers to share the cost, timing, and technology risks of development of OSW across the broadest possible group of ratepayers."[39]

The Commission should also consider affordability in the context of overall energy expenditures and relative bill impacts in the future. As Southern California Edison's Pathway 2045 modelling found, investments to electrify the economy are more than offset by reductions in other fuel costs,[40] and even relatively expensive projects can have minimal bill impacts when considering a large rate-base and long-term contracting.[41] In addition, costs of LLT procurement will not be born on ratepayers until COD, which for offshore wind is unlikely before 2035. By that time, electrification loads are likely to have increased substantially with the effect of expanding the

[39] Ruling, p. 23.

[40] Southern California Edison Countdown to 2045: https://www.edison.com/clean-energy/countdown-to-2045.

[41] For example, New York State Energy Research and Development Authority award of 1,700 MW at weighted average all-in development cost of $150.15 per megawatt-hour will have an average bill impact of about $2.09 per month. https://www.nyserda.ny.gov/About/Newsroom/2024-Announcements/2024_02_29-Governor-Hochul-Announces-Two-Offshore-Wind-Project_Awards.

rate base and reducing generation costs at the individual consumer level.[42] Furthermore, wildfire risk mitigation investments, which are a major driver of rate increases today, will likely reduce in magnitude. ACP-California also supports several solutions for improving affordability in the near-term, including eliminating cost-ineffective public-purpose-programs, leveraging external funding sources, such as the GGRF, to offset certain clean energy transition costs from the rate base, implementing more equitable rate designs, such as fixed charges, shifting Climate Credits to California Alternate Rates for Energy customers, and enhancing regional grid integration. However, short-sighted approaches to affordability which delay or scale-back on necessary long-term investments will increase the risk of emergency stop-gap solutions, including expensive short-term energy purchases, short-term contract extensions,[43] and prolonged retention or reliance on polluting resources.

25. Is the proposed timeline and activities description appropriate for DWR's initial solicitation activities? If not, what should be the expected timeline and why? What other activities and/or interim milestones should be considered or required?

The Ruling proposes a three-year 2026-2028 solicitation window with potential for contracting in 2029. This is an unusually long solicitation window, and we expect that with no chance to contract before 2029, most developers would submit bids at the end of this timeframe. Instead, we recommend providing more certainty by offering solicitation opportunities that open and close each year. For OSW, we recommend a first solicitation between 2026-2028, with successive opportunities biannually thereafter. For OOS wind, a first solicitation opportunity could occur in 2025-2026. As discussed in response to previous questions, these solicitations should lead up to 10 GW of OSW and 3.7 GW of OOS Wind by 2035. This approach is similar to the approaches taken on the East Coast where legislation, executive order, or a Commission decision set a total procurement target which was later implemented over several years, as shown in Table 1 below.

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[42] See California Energy Commission, 2023 Integrated Energy Policy Report, CEC-100-2023-001-CMD (January 2024), p. 131, available at: https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2023-integrated-energy-policy-report.

[43] See $1.2 Billion investment in short term contract extensions for three gas facilities, https://www.energy.ca.gov/filebrowser/download/5674?fid=5674#block-symsoft-page-title.

Year	MW Procurement			
	New York	New Jersey	Massachusetts	Maryland
State Procurement Target (as % current peak load)	9 GW by 2035 (28% peak load)	11 GW by 2040 (47% peak load)	5.6 GW by 2027 (22% ISO New England Peak Demand)	8.5 GW by 2031 (60% peak load)
2017			800	390
2018	1,700	1,100		
2019			800	
2020	2,400	2,600		
2021			1,600	1,655
2022	2,000+			
2023	1,700 MW (re bids from 2019)	4,000	3,600 (w/ CT, RI)	
2024		1,200 – 4,000		
Selected project sizes for completed solicitations to date	816 - 1,260 MW	1,100 – 2,400 MW	400 - 1,200	~800 MW

26. Is there an optimal contract structure for DWR to consider when contracting with resources through the centralized mechanism? Should the Commission review contract structures or other pre-bid activities in advance of their completion?

ACP-California offers the following recommendations for solicitation and contract structure, based on developer experience with East Coast OSW processes:

- DWR should conduct technology specific solicitations, such that the same technologies compete with one another, but not with resources with different risks, costs and attributes.

- Solicitations should be open to projects from any geographic location (i.e., Morro Bay OSW projects should not be solicited separately from Humboldt projects). This will enable competition across a schedule of solicitations.
- Solicitation requirements should be kept simple to allow developers flexibility to best manage risks to deliver projects most affordably and on time. Complexity and overly prescriptive requirements result in more risks, costs and less ratepayer value. Contracts should ensure that project developers use commercially reasonable efforts to meet projected CODs. However, there should be flexibility in granting extensions to CODs, and there should not be liquidated damages in the event that a seller fails to meet its COD. This flexibility is necessary due to the inherent uncertainty in long lead-time project development.
- Bids should be evaluated based on energy system values and project maturity, and separately evaluate economic development and other qualitative criteria using proscriptive weighting.
- Bids should provide for pricing flexibility to address uncertainties in future costs, such as through an inflation adjuster and materials indexing.
- Bids should avoid or gradually phase in local content requirements. The state should instead incentivize supply chain investments and local manufacturing through long-term volume via procurement and infrastructure improvements.

27. Comment on how the "procurement group" for DWR required by AB 1373 should be implemented.

ACP-California does not offer a response at this time.

28. Is an application the appropriate mechanism for Commission consideration of individual contracts proposed by DWR after the conduct of its solicitation? Explain.

Applications can be lengthy processes and there are already numerous protections in place to create certainty that LLT resources will not be procured at "any cost." In many cases, applications can take years before the Commission issues a final decision. ACP-California is concerned that the additional time of an application process could create unnecessary project development risks. The Commission should allow DWR to file a Tier 3 advice letter, which would provide opportunity for parties to review DWR's proposed contract and comment or protest the resolution. The Tier 3 advice letter process also affords opportunities for fact finding before the Commission determines whether a contract meets the Commission's just and reasonable standard. The Tier 3 advice letter process can also be completed relatively quickly compared to an application process.

29. Include any other process recommendations for the Commission to request or require for DWR's conduct of centralized procurement.

We disagree with analysis presented in slide 10 of E3 analysis showing risks of central procurement commensurate with the size of need identification. With a larger need identification, there remain multiple mechanisms for the Commission to manage risk and protect ratepayers. These include:

- Enabling competition among developers by designing a solicitation timeline such that there is competition for who can secure a contract first (e.g., 3 GW first solicitation, 4 GW second solicitation).
- Opportunities for DWR and a procurement review group to consider the contents of bids, provided confidentiality is protected.
- The existing discretion of the Commission to reject a contract based on a just and reasonableness standard.
- Separating central procurement quantities from RCPPP and past IRP orders.
- Contracting mechanisms which promote cost certainty, as described in Question 26.

Most importantly, we oppose employing cost caps ahead of a solicitation. For emerging technologies like floating OSW and enhanced geothermal, costs are simply too uncertain to employ a prudent cap at this time. Price caps employed in East Coast OSW solicitations have proven problematic, increasing risk of project failure and compromising reliability.[44] Furthermore, as described in response to Question 6, we do not believe the cost-effectiveness analysis provided by E3 to supplement this Ruling provides a reasonable basis for determining a cost cap for OSW, as it is missing several important system values, and our understanding of OSW resource value is evolving. Similarly, costs of floating OSW are currently uncertain and with a model extremely

[44] See Power Advisory "Massachusetts Offshore Wind Price Caps" https://www.poweradvisoryllc.com/reports/massachusetts-offshore-wind-price-caps.

sensitive to cost assumptions across all resources, would likely mislead the CPUC if used to set an ex-ante cost cap. The appropriate time for cost review is in reviewing bids when DWR and the Commission will have the most current information driven by a competitive solicitation. With this information, and updated information on costs of alternative resources, demand forecasts, and resource performance, the Commission can fulfill its duty to consider the “just and reasonableness” of a central procurement contract prior to approval.

30. **Specifically for developers of LLT resources: What would be the optimal timing and minimum threshold amount of a DWR centralized procurement solicitation from your perspective? Explain your rationale. In addition, delineate the categories of costs associated with your projects and when such costs should be firm enough to allow binding bids in a solicitation (for example, due to supply chain issues, components may only be available by a certain date to inform bid development; transmission availability is expect by a certain date; *etc.*). Be as specific as possible to assist the Commission in designing a reasonable process and timeframe. If desired, information in response to this question may be requested to be submitted under seal, if supported by relevant justification.**

    ACP-California does not offer a response at this time.

31. **Assuming that the Commission will give direction to DWR on the expected online date for centrally-procured LLT resources, how might such a directive be framed? For example, should the Commission specify commercial operation by a certain date, by a certain year, or within a range of years?**

The process should provide for flexibility in meeting CODs without penalties for delays due to the inherent uncertainty in LLT resource procurement and development. The Commission recently addressed the need for flexibility in LLT-COD timing in the recent PSP Decision, which clarified the online dates for LLT resources included in the MTR order and provided additional time due to this uncertainty. The Commission should specify in its need assessment that the need is 10 GW of OSW with online dates starting in 2035 and at least 3.7 GW of OOS wind.

ACP-California appreciates this opportunity to provide comments on the Ruling.

DATED: May 24, 2024 Respectfully submitted,

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